

FAS – Office of Global Analysis (OGA)
United States Department of Agriculture (USDA)
International Operational Agriculture Monitoring Program



March Summary

March 28th, 2008

1. Production for MY 2008/09 winter wheat and barley crop is forecasted to be lower than the previous year. The forecast is supported by historical agro-meteorological data, MODIS Normalized Difference Vegetation Index (NDVI) time-series data, and recently acquired high and moderate resolution satellite images. The most significant decreases in winter grains production are expected in the northern rainfed governorates. Decreases are also expected in the central and southern governorates, but appear to be geo-specifically concentrated. This effect seems to be related to poorly irrigated cropland.
2. Cumulative precipitation remains well below normal for the winter grains season (MY 2008/09) (Figure 1).
3. Current NDVI (March 23) derived from AWiFS IRS-P6 showed areas of high crop abundance in the central and southern irrigated governorates. In contrast, the crop abundance for the northern rainfed governorates remains low (Figure 2).
4. Change detection analysis comparing the current MODIS NDVI Composite (March 05 to March 20) with the 9-Year average showed significant decreases in crop abundance, particularly in the northern rainfed governorates (Figure 3). An image comparison also showed differences in crop abundance between multiple years (Figure 4).
5. Crop area statistics were derived from a combination of moderate resolution AWiFS P-6 and coarser resolution MODIS NDVI composites; high resolution Quickbird imagery was used for image-based ground truthing. The statistics are combined area for wheat and barley per province for MY 2008/09 (Table 1); these figures will change as the MY 2008/09 winter grains season progresses. The final area forecast will be provided at the end of April during peak greenness.

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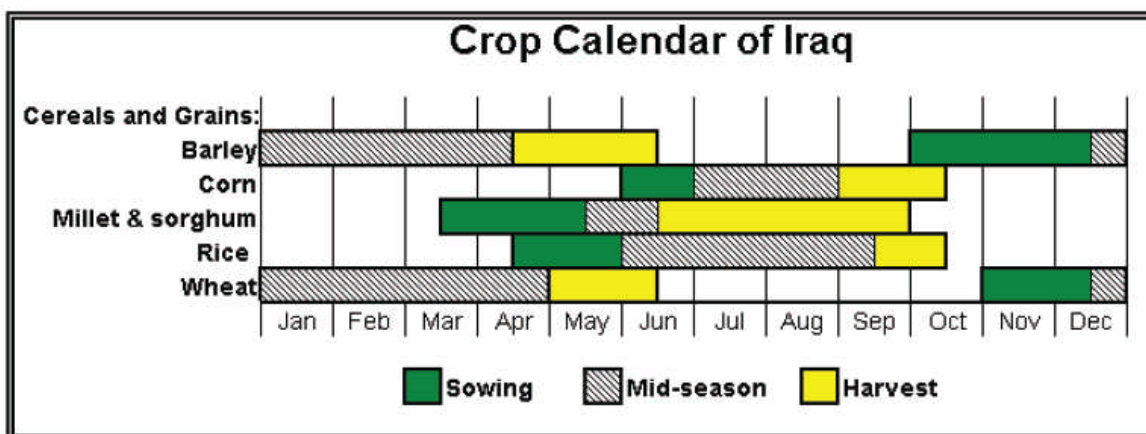


Table 1. MY 2008/09 wheat and barley Cropland Area (1000 ha)

Region	Governorate	2002/03	2003/04	2004/05	2005/06	2006/07	MY 2008/09 March Estimate	Change from Average	
								Current	Average
North	Arbil	242.6	255.0	185.1	387.5	369.4	21.8		243.6
	Dahuk	153.6	167.5	125.7	138.8	131.6	66.6		130.6
	Sulaymaniyah	285.6	285.8	122.3	277.8	228.6	96.7		216.1
	Ninawa	1036.8	975.0	1142.5	1164.7	1083.9	56.8		909.9
Central	At Ta'min	222.2	220.4	170.5	218.0	170.1	74.6		179.3
	Diyala	188.8	188.5	125.5	145.6	148.6	123.7		153.4
	Salah ad Din	156.7	155.3	145.8	138.7	122.7	125.0		140.7
	Baghdad	50.4	87.5	48.5	67.8	65.4	55.0		62.4
	Babil	73.6	100.0	70.2	87.6	91.8	99.7		87.2
	Wasit	251.8	206.2	203.8	235.4	220.6	234.1		225.3
	Al Qadisiyah	151.1	150.0	171.1	171.5	174.4	170.6		164.8
	Karbala	5.6	5.6	8.0	9.8	6.6	8.3		7.3
	Al Anbar	35.5	35.3	46.2	36.9	58.9	54.5		44.5
South	An Najaf	46.0	45.8	47.6	49.4	47.0	38.0		45.6
	Al Muthanna	50.1	50.3	55.9	35.3	39.3	32.1		43.8
	Dhi Qar	68.3	63.3	96.2	127.5	135.7	113.5		100.7
	Maysan	99.8	100.7	143.3	158.7	151.9	111.0		127.6
	Al Basrah	23.9	23.5	22.0	19.0	22.7	18.0		21.5
Total		3142.3	3115.4	2930.2	3470.1	3269.1	1500.0		2904.5
									-48.4%

Source – Area statistics sourced from AWIFS P-6, MODIS, Quickbird NDVI data;
 COSIT and Kurdish MOA

Not Official USDA Data

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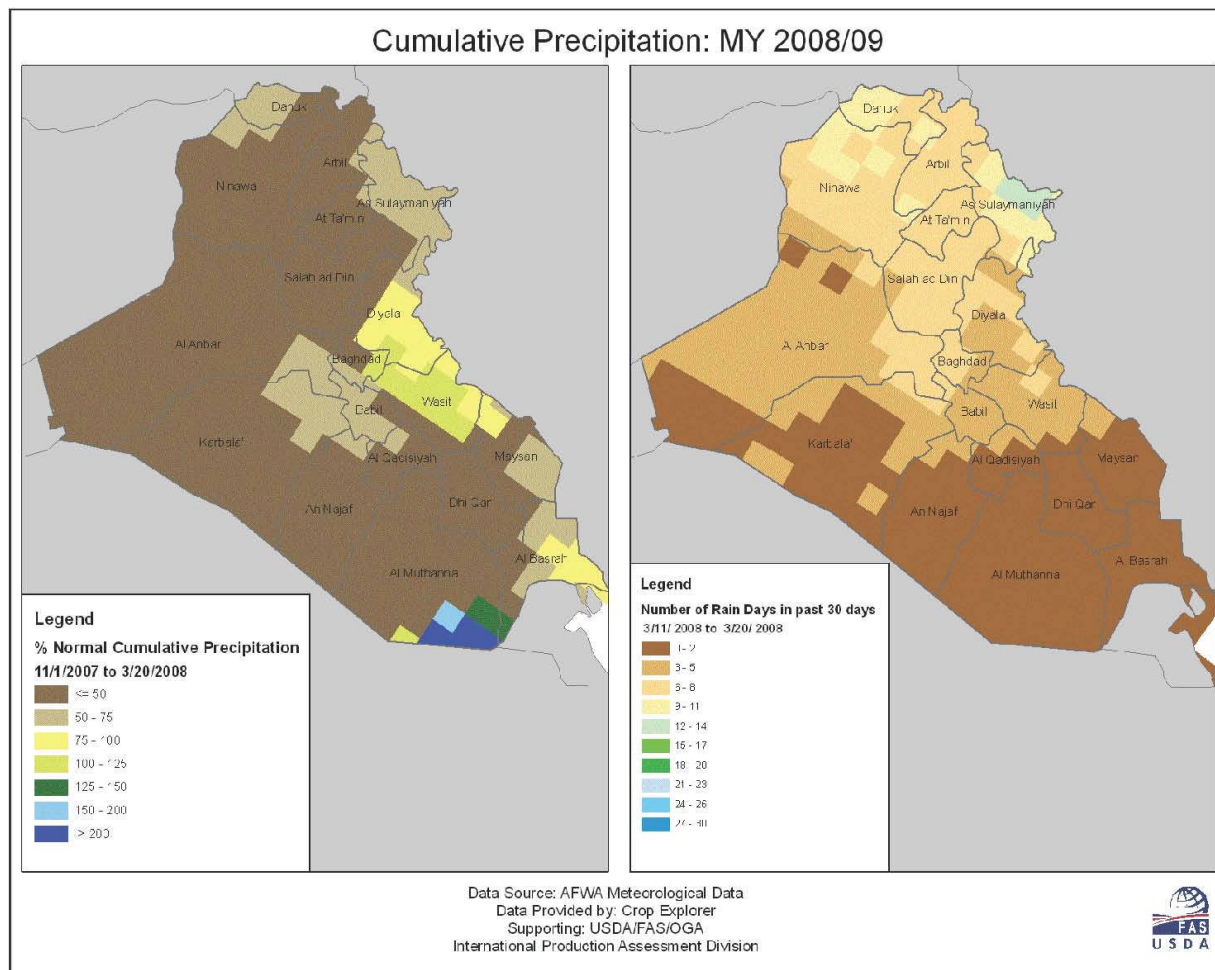


Figure 1: AFWA Cumulative precipitation data (March): MY 2008/09

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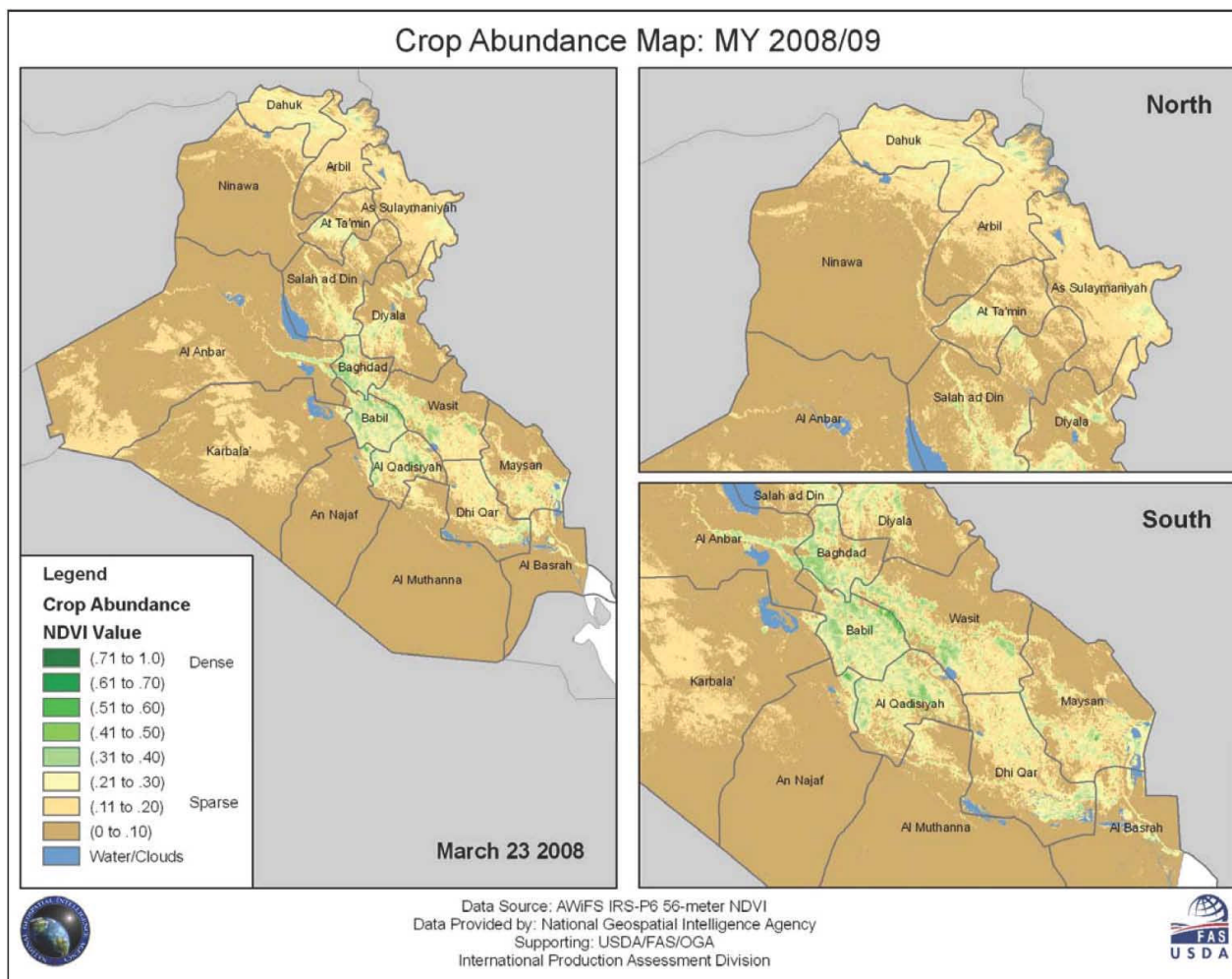


Figure 2: AWiFS NDVI Composite (March 09 to March 23): MY 2008/09

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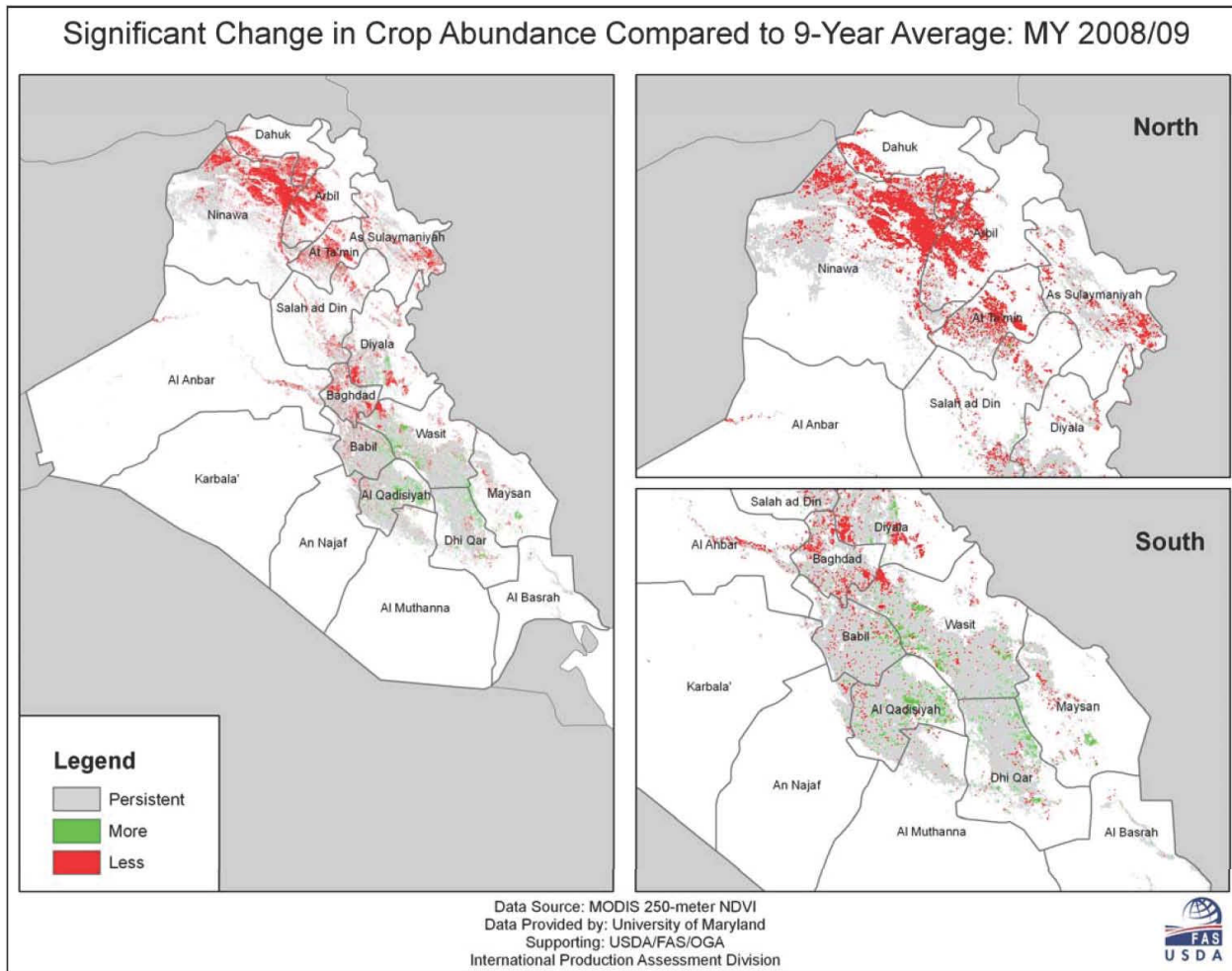


Figure 3: MODIS 250-meter change detection map comparing current NDVI with the 9-year average.

Crop Abundance Image Comparison: MY 2000/01 to MY 2008/09

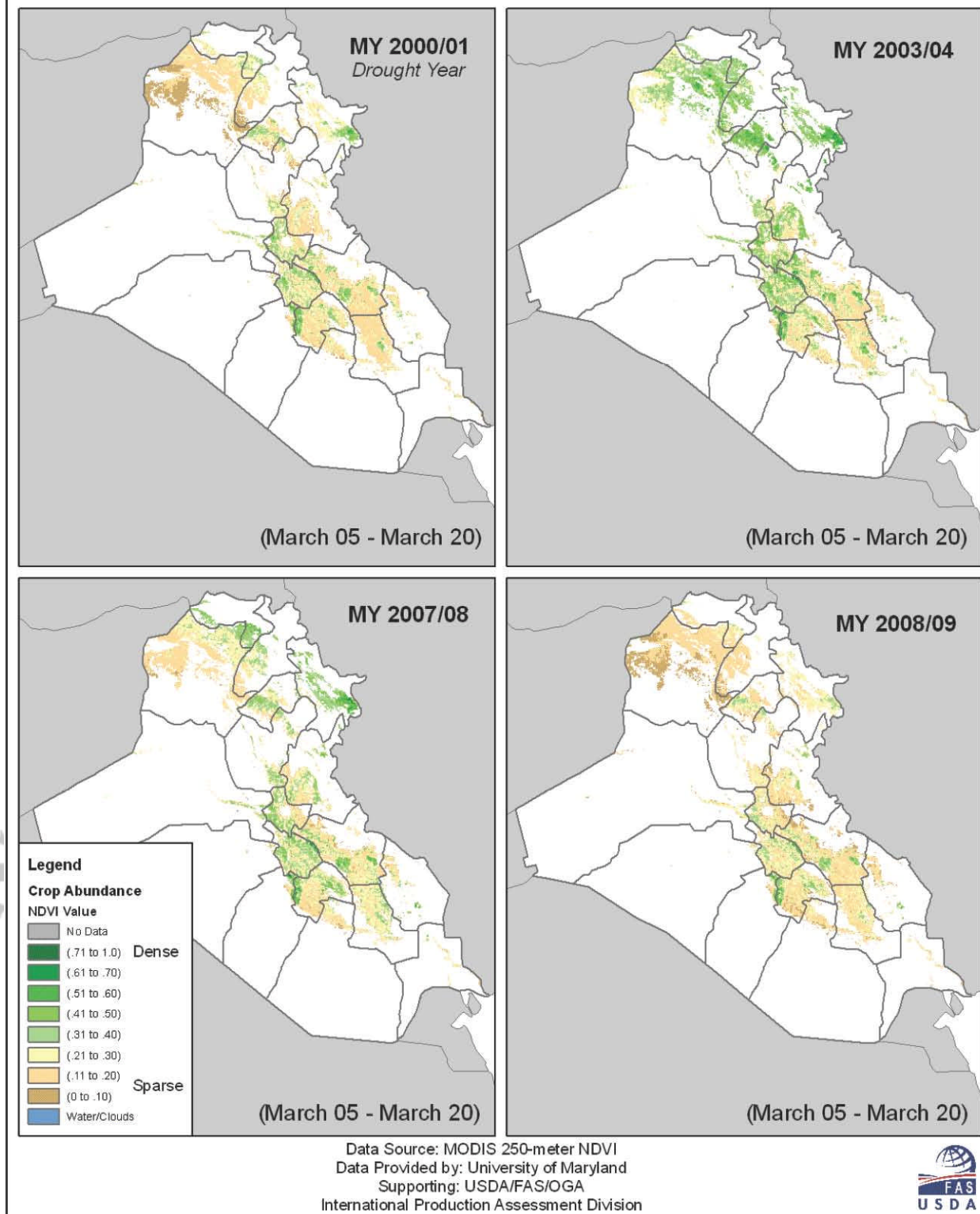


Figure 4: MODIS 250-meter NDVI comparison map: MY 2008/09.